REMARKS

Claims 1-15 were presented for examination.

Claims 1-15 were rejected under 35 U.S.C. §102(b) as being anticipated by "Kriging Analysis of Geochemical Data", by Sandjivy ("Sandjivy"). In response, Sandjivy discloses a method for detecting geochemical anomalies and for providing a more objective interpretation to the terms "anomaly" and "regional component" (see Abstract). Kriging analysis relies in particular on the assumption that a phenomenon measured locally by means of optionally-regular sampling can be analyzed as a linear sum of a plurality of independent phenomena, the variogram of the overall phenomenon corresponding to the linear sum of the variograms of each of the independent phenomena making it up. Sandjivy describes such kriging analysis.

More particularly in Sandjivy, the variogram corresponding to the measured experimental data is resolved as sum of modeled variograms and from the experimental data and the models selected for the individual variograms used to resolve the data (see Sandjivy page 5, last two lines, and page 10, first line).

One of the difficulties of Sandjivy kriging analysis technique is that it requires the use of models of the covariance functions (see page 3, last paragraph and page 41, first paragraph). Although such filtering techniques give good results, this technique is strongly dependent on the individual expertise of the person selecting the models for the various variograms. That can be a source of error, and prevents such technique to be used by people who are not specialists.

Furthermore, selecting models also leads to significant losses of time in production. An object of the invention as defined in claim 1 of the present application is to mitigate that drawback and to propose a filtering technique using kriging analysis that can be implemented in automatic or almost automatic manner. This is done by providing a method of filtering at least two series of

seismic data representative of the same zone, the method being characterized by determining an estimate of the component that is common to the data series, and deducing a resolution of these data series from the estimate, the resolution of the data series being used for determining the topography of the subsoil.

a. Sandjivy does not disclose a method of filtering at least two series of seismic data representative of the same zone. On the contrary, Sandjivy describes a method of processing only one series of seismic data Zα.

b. Sandjivy does not describe determining an estimate of the component that is common to the data series. The step of "determining an estimate of the component that is common to the data series" defined in claim 1 refers to the determination of the estimator Z^*_{12} as defined in the description of the application.

The estimator Z^*_{12} is obtained using Z1, Z2 (which correspond to the two series of data representative of the same zone, see §[0034] of US 2005/0209895, and can be written as follows:

$$Z^*_{12}(x) = \sum_{\alpha=1}^{N} \lambda^1_\alpha Z^1{}_a + \sum_{\beta=1}^{N} \lambda^2_\beta Z^2{}_\beta$$

On the contrary, in Sandjivy, the estimate Z* of equation (a) is an estimator of Zα (and not an estimator of Z1 and Z2), where Zα correspond to the experimental values (see page 9, first three lines), i.e. experimental data of a sole seismic data series.

c. Sandjivy does not describe deducing a resolution of the data series from the estimate. Indeed, since Sandjivy does not describe deducing a resolution of the data series from this estimate.

Consequently, the method as defined in claim 1 is new in view of Sandjivy. The determination of an estimate of the component that is common to the data series allows proposing a filtering technique using Kriging analysis that can be implemented in automatic or almost automatic manner (see application, paragraph [0021]). This point (and the method of the present invention as a whole) is neither taught nor suggested in Sandjivy. Further, claims 2-15 depend on claim 1 which should be in allowable form. Therefore, claims 1-15 should be in allowable form.

In commenting on the references and in order to facilitate a better understanding of the differences that are expressed in the claims, certain details of distinction between same and the present invention have been mentioned, even though such differences do not appear in all of the claims. It is not intended by mentioning any such unclaimed distinctions to create any implied limitations in the claims. Not all of the distinctions between the prior art and applicant's present invention have been made by applicant. For the foregoing reasons, applicant reserves the right to submit additional evidence showing the distinction between applicant's invention to be unobvious in view of the prior art.

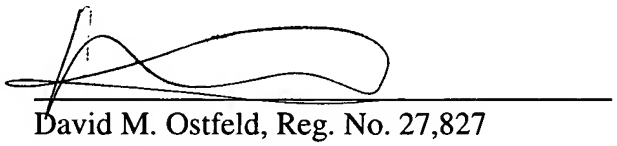
The foregoing remarks are intended to assist the Office in examining the application and in the course of explanation may employ shortened or more specific or variant descriptions of some of the claim language. Such descriptions are not intended to limit the scope of the claims; the actual claim language should be considered in each case. Furthermore, the remarks are not to be considered to be exhaustive of the facets of the invention which are rendered patentable, being only examples of certain advantageous features and differences which applicant's attorney chooses to mention at this time.

The Office is authorized to charge the petition fee and any other fees or credit any overpayment for this matter to the Deposit Account of Adams and Reese, LLP, Account No. 50-2413.

Reconsideration of the application as amended and allowance thereof is requested.

Please send all future correspondence regarding the above-referenced application to the undersigned at the address appearing below.

Respectfully submitted,



David M. Ostfeld, Reg. No. 27,827
Attorney for Applicant
Adams and Reese LLP
4400 One Houston Center
1221 McKinney
Houston, Texas 77010
Tel: (713) 308-0128
Fax: (713) 652-5152

449192.02